

## SDR-260 Stereo Digital Reverherator



Congratulations on your choice of digital effects processor - you have purchased one of the finest digital effects processors on the market today. This unit was developed using the expertise of professional sound engineers and working musicians. You will find that your new NADY AUDIO SDR-260 has superior performance and greater flexibility than any other digital effects processors in its price range. Please read this manual carefully to get the most out of your new unit.

Thanks for selecting NADY AUDIO as your choice in digital effects processor.

## FEATURES

An indispensable ally in numerous studio and stage applications, the versatile SDR-260 enables boundless creativity with its richly textured, complexly detailed algorithms.

- Powerful dual engine digital sound processor (DSP) offers a full complement of 60 of the latest and most useful breathtaking effects presets including hall and room reverbs, gates, echo/vibrato/chorus/flanging delays, pitch shifting, and concert/stage recreations.
- Intuitive and easy to operate-all parameters can be selected and/or edited via the jog wheel knob or external MIDI remote control (via Program Change messages) with 60 user program locations for personal edits storage
- 24 bit A/D and D/A converters for ultra-high headroom and resolution. Internal 44.1 KHz sampling rate for unsurpassed audio
-Servo-balanced inputs and outputs with XLR and 1/4" TRS connectors.
- Input and output Level Switches add +4 dB or attenuation 10 dB .
- Remote MIDI program change and bypass control
- 4 segment ultra-precise stereo input level LED display
- 3 Digit program and parameter LED display
- Front Panel Selectable Preset/User/MIDI/Bypass controls
- Input level Control, variable
- Rugged construction for maximum long-term reliability
- Shielded internal dual regulated power supply with $\sim 115 \mathrm{~V}(60 \mathrm{~Hz}) / \sim 230 \mathrm{~V}(50 \mathrm{~Hz})$ select switch and fused IEC power cord connector


## CONTENTS

FEATURES .....  2
WARNING ..... 3
INSTALLATION .....
LEGAL INFORMATION ..... 4
CONTROL AND CONNECTORS ..... 5
Front Panel .....
Rear Panel ..... 5
OPERATION .....  6
Getting Started .....
Adjusting Levels ..... 6
Mode Selection ..... 6
Bypass Effects ..... 6
Selecting Effects .....
Custom Effects. .....  .6
Remote Control Using MIDI ..... 6
PRESET PROGRAM LIST ..... 7
SPECIFICATIONS ..... 7
Date of Purchase
Dealer's Name $\longrightarrow$
City $\longrightarrow$
State $\square$
Zip $\square$
Model \#
Serial \#


An equilateral triangle enclosing a lightening flash/arrowhead symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure which may be of sufficient magnitude to constitute a risk of electric shock.

Athe literature enclosed with this unit.

## IMPORTANT SAFETY INSTRUCTIONS

When using this electronic device, basic precautions should always be taken, including the following:

1. Read all instructions before using the product.
2. Do not use this product near water (e.g., near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool, etc.).
3. This product should be used only with a cart or stand that will keep it level and stable and prevent wobbling.
4. This product, in combination with headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
5. The product should be positioned so that proper ventilation is maintained.
6. The product should be located away from heat sources such as radiators, heat vents, or other devices (including amplifiers) that produce heat.
7. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product. Replace the fuse only with one of the specified type, size, and correct rating.
8. The power supply cord should: (1) be undamaged, (2) never share an outlet or extension cord with other devices so that the outlet's or extension cord's power rating is exceeded, and (3) never be left plugged into the outlet when not being used for a long period of time.
9. Care should be taken so that objects do not fall into, and liquids are not spilled through, the enclosure's openings.
10. The product should be serviced by qualified service personnel if:
A. The power supply cord or the plug has been damaged.
B. Objects have fallen into, or liquid has been spilled onto the product.
C. The product has been exposed to rain.
D. The product does not appear to operate normally or exhibits a marked change in performance.
E. The product has been dropped, or the enclosure damaged.
11. Do not attempt to service the product beyond what is described in the user maintenance instructions. All other servicing should be referred to qualified service personnel.

## INSTALLATION

To ensure years of enjoyment from your NADY AUDIO SDR-260, please read and understand this manual thoroughly before using the unit.

## INSPECTION

Your NADY AUDIO SDR-260 was carefully packed at the factory in packaging designed to protect the units in shipment. Before installing and using your unit, carefully examine the packaging and all contents for any signs of physical damage that may have occurred in transit.
[Please note: Nady Systems is not responsible for shipping damage. If your unit is damaged, do not return to Nady, but notify your dealer and the shipping company (if shipped to you) immediately to make a claim. Such claims must be made by the consignee in a timely manner.]

## CONTENTS

- Instruction manual
- SDR-260 (verify that the unit's serial number is same as shown on shipping carton)
- AC Power cord
- Warranty Card


## RACK MOUNTING

The SDR-260 fits into one standard 19 " rack unit of space ( $13 / 4$ "). Parts of the unit can become very warm during use. This is normal during operation. Care should be taken to ensure that there is enough space around the unit for cooling (at least 12 " or 30 cm ). Do not place the SDR-260 on high temperature devices such as power amplifiers, etc., or the unit may overheat in operation. Also, do not place the unit on speakers as this may cause them to move and/or fall due to speaker vibrations.

Although the unit's chassis is shielded against radio frequency (RF) and electromagnetic interference (EMI), extremely high fields of RF and EMI should be avoided.

## POWER CONNECTION

The SDR-260 has an internal power supply and is designed to operate from an external AC source. Power requirements for electrical equipment differ from area to area. Be sure to confirm that the voltage selected by the voltage selector switch on the back panel is proper for your area (120VAC/60 Hz or $230 \mathrm{VAC} / 50 \mathrm{~Hz}$ ) per the information below:

> Europe (except UK): $230 \mathrm{~V}, 50 \mathrm{~Hz}$
> UK and Australia: $240 \mathrm{~V}, 50 \mathrm{~Hz}$
> USA and Canada: $120 \mathrm{~V}, 60 \mathrm{~Hz}$

For other areas, please check with local authorities. When ready to operate, plug the AC cord into the power source. Make sure that the unit is turned off before connecting to the AC power source to avoid possible loud transients that can damage your speakers or your ears, especially when monitoring with headphones.

## LEGAL INFORMATION

## NOTICE

The information in this document is subject to change, as the Company may make changes to product in order to improve reliability, design, or function, without prior written notice. No part of this manual may be reproduced or transmitted in any form or by any means without the written permission of the company.
IN NO EVENT WILL THE COMPANY BE LIABLE FOR SPECIAL INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER ARISING DIRECTLY OR INDIRECTLY, SUCH AS LOSS OF PROFIT OR GOOD WILL, THAT MAY BE SUFFERED IN CONNECTION WITH THE PURCHASE OF THIS PRODUCT OR FROM THE BREACH OF ANY REPRESENTATION OR WARRANTY.

## LICENSE

The Company grants the customer a non-exclusive, non-transferable license to use the software, if any, accompanying this product for internal use on a single computer system. The end user may make a single copy of the software solely for backup purposes; otherwise, no copies may be made of the software or any part thereof. No other license of any kind is granted to any part of the product or any of the intellectual property therein.

## CONTROLS AND CONNECTIONS

## FRONT PANEL

## (3)



## 1. INPUT GAIN CONTROL

Adjusts the input level of the audio signal to the unit.

## 2. INPUT LEVEL DISPLAY

This 4-segment bargraph displays the input level. The clip LED's will light at 3dB below clipping.

## 3. VALUE INDICATOR

Whenever the SDR-260 is powered up, this displays the last chosen effect number. In use, the display indicates different alphanumeric information, depending on the mode selected.

- In NORMAL MODE it indicates which of the 255 effects (1-255) has been selected.
- In EDIT MODE it indicates the editable value of the parameter (0-127).
- In EQ MODE it indicates the editable value of the parameter (0-127).
- In STORE MODE it indicates the address (1-20) being saved.
- In LOAD MODE it indicates address (1-20) being loaded.


## 4. PUSH \& ROTARY CONTROL KNOB

This is the tool used to control the SDR-260

## 5. PARAMETER EDIT INDICATORS

Each indicator will light when the corresponding parameter is being displayed - Delay/Reverb/HI Patio/Early Reflection Level.

## 6. STORE INDICATORS

This indicator will light when in STORE MODE

## 7. POWER SWITCH

Use this switch to power unit ON or OFF. The integrated LED will light when the unit is ON. Before turning on this unit, verify connection to the proper voltage AC source, check all connections and turn down the level controls of equipment connected to the outputs.

## REAR PANEL



## 8. AC POWER CORD IEC CONNECTOR WITH INTEGRATED FUSE HOLDER

This standard IEC power cord receptacle is used to connect the AC power to your unit. It features a built-in fuse holder for a $5 \times 20 \mathrm{~mm}, 0.5 \mathrm{~A} / 250 \mathrm{~V}$ slow-blow fuse. If the fuse continuously blows, shut of the unit and have it serviced by qualified service personnel.

## 9. AC VOLTAGE SELECT SWITCH

Before plugging in the power cord, check to see that the unit is set for the proper voltage for your area: $\sim 115 \mathrm{~V}(60 \mathrm{~Hz})$ or ~230V (50Hz).
(Note: use at the improper voltage can damage your unit and void the warranty.)
10. MIDI INPUT PORT

Receives MIDI Program Messages on MIDI Channel 1.

## 11. INPUTS

Unbalanced 1/4" (6.3mm) and balanced XLR inputs for both left and right channels.

## 12. INPUTS LEVEL SWITCH

Switches between -10 dB and +4dB input level attenuation.

## 13. OUTPUT LEVEL SWITCH

Switches between -10dB and +4dB output level attenuation.

## 14. OUTPUTS

Unbalanced 1/4" (6.3mm) and balanced XLR outputs for both left and right channels.

## GETTING STARTED

Set the INPUT VOLTAGE SELECT SWITCH (8) for either $\sim 115 \mathrm{~V}(60 \mathrm{~Hz})$ or $\sim 230 \mathrm{~V}(50 \mathrm{~Hz})$ AC power. Attach the power cord and plug it in.

Connect the Input and Output signals from the SDR-260 to your audio system with the appropriate XLR balanced or $1 / 4$ " unbalanced INPUT and OUTPUT JACKS (11, 13, 14, 16), depending on the type of cable and connectors you're using. For Mono input use the Left channel input connector. XLR output is disconnected when output $1 / 4$ " jack is inserted.

Turn the POWER SWITCH (7) On. You will see the preset Program number [P 1] on the VALUE INDICATOR (3).

## ADJUSTING LEVELS

Adjust the INPUT GAIN CONTROL (1) for the highest setting without the red top L/R LED indicators of the INPUT LEVEL DISPLAY (2) staying on continuously. Occasional flickering of these red LED indicators is normal.

## The INPUT LEVEL SWITCH (15) and OUTPUT LEVEL

 SWITCH (12) are provided to adjust the levels for the optimum performance. Adjust the level controls to minimum noise and distortion while operating with the components of your sound system.
## MODE SELECTION

Pressing the ROTARY CONTROL KNOB (6) quickly will cycle the modes from "P" Preset programs [P1-P60], to "U" User programs [U1-U60] where custom programs are stored, to finally PAS where the effects are bypassed.

## BYPASS EFFECTS

The effects are disabled in the "PAS" mode.

## SELECTING EFFECTS

In the Preset programs mode there are 60 preset effects, select one by rotating the ROTARY CONTROL KNOB (6) through the sixty choices. Stop at the desired choice and the audio will mute briefly while the program is loaded. See Preset PROGRAM LISTING of effects on the front panel.

In the User mode there are 60 locations for custom effects, select one by entering the User mode and rotating the knob through the sixty choices.

## CUSTOM EFFECTS

Custom effects are modified preset programs. There are 60 locations for storing custom effects. Enter the Edit mode by holding the ROTARY CONTROL KNOB (6) in for 3 seconds. The display will show the value of the program parameter. Rotating the knob will raise or lower the program subcategory parameter value. Pressing the knob quickly will cycle the sub-categories DELAY (1-250mS), REV (1-99\%), HIPATIO (0.1-1.0), ER-LVL (1-99). After adjusting the parameter values for the desired sound the custom effect can be stored. Holding the knob in for 3 seconds will enter STORE mode. The Save LED and the "U" will flash; rotate the knob to select the storage location [U1-U60]. To complete the STORE process, Hold the knob in for 3 seconds, the STORE LED will blink twice indicating the changes have been stored. To cancel the STORE process press and release the knob quickly.

## REMOTE CONTROL USING MIDI

Connect the SDR-260 to the MIDI controller via the rear panel MIDI INPUT (10) connector.

Receives MIDI Program Messages on MIDI Channel 1.
Prgm Mess. 1-60 for Preset Programs 1-60
Prgm Mess. 61-120 for User Programs 1-60
Prgm Mess. 121 for Bypass Mode

## PRESET PROGRAM LIST

| $\#$ |  |
| :---: | :--- |
| Hall Effects | NAME |
| 1 | Large Hall 1 |
| 2 | Large Hall 2 |
| 3 | Large Hall 3 |
| 4 | Slap Hall 1 |
| 5 | Slap Hall 2 |
| 6 | Gew Hall |
| 7 | Dark Hall |
| 8 | Church 1 |
| 9 | Church 2 |
| 10 | Medium Hall 1 |
| 11 | Medium Hall 2 |
| 12 | Small Hall 1 |
| 13 | Small Hall 2 |
| 14 | Small Hall 3 |
| 15 | Vibrato |
| Vibrato Effects | Vibrato $\rightarrow$ Reverb 1 |
| 16 | Vibrato $\rightarrow$ Reverb 2 |
| 17 | Vibrato $\rightarrow$ Reverb 3 |
| 18 | Vibrato $\rightarrow$ Reverb 4 |
| 19 |  |
| 20 | Chorus |
| Chorus Effects | Chorus $\rightarrow$ Reverb 1 |
| 21 | Chorus $\rightarrow$ Reverb 2 |
| 22 | Chorus $\rightarrow$ Reverb 3 |
| 23 |  |
| 24 | Pitch Shift 1 |
| Pitch Shift Effects | Pitch Shift 2 |
| 25 | Pitch Shift 3 |
| 26 |  |
| 27 | Concert 1 |
| Concert Effects | Concert 3 |
| 28 | 29 |


| $\#$ |  |
| :---: | :--- |
| Room Effects |  |
| 31 | Bright Reflections |
| 32 | Live Room 1 |
| 33 | Live Room 2 |
| 34 | Live Room 3 |
| 35 | Live Room 4 |
| 36 | Studio |
| 37 | Plate 1 2 |
| 38 | Bright Room 1 |
| 39 | Bright Room 2 |
| 40 | Gaall Room |
| 41 | Gated Room 1 |
| 42 | Gated Room 2 |
| 43 |  |
| 44 | Echo Vocal |
| Echo Effects | Short Delay |
| 45 | Stereo Long Delay |
| 46 | Stereo Medium Delay |
| 47 | Stereo Short Delay |
| 48 |  |
| 49 | Flange Room 1 |
| Flanger Effects | Flange Room 2 |
| 50 | Flange Room 3 |
| 51 | Flange Room 4 |
| 52 | Flange $\rightarrow$ Reverb 1 |
| 53 | Flange $\rightarrow$ Reverb 2 |
| 54 | Flange $\rightarrow$ Reverb 3 |
| 55 |  |
| 56 | Stage 1 |
| 57 | Stage 2 |
| Stage Effects | Stage 3 |
| 58 |  |
| 69 |  |
| 60 |  |

## SPECIFICATIONS

ANALOG AUDIO INPUTS (Needs to be corrected and updated)
Connectors $\qquad$ XLR and $1 / 4$ " jack
Type. $\qquad$ RF filtered, servo balanced input Impedance $60 \mathrm{~K} \Omega$ balanced, $30 \mathrm{~K} \Omega$ unbalanced

## ANALOG AUDIO OUTPUTS

Connectors $\qquad$ XLR and $1 / 4$ " jack
Type
.Electronically servo-balanced output stage
Impedance.
$60 \Omega$ balanced, $30 \Omega$ unbalanced

## SYSTEM SPECIFICATIONS

Bandwidth $\qquad$ .18 kHz to $20 \mathrm{kHz}, \pm 3 \mathrm{~dB}$
Noise 94 dBu , unweighted, 20 Hz to 20 kHz

## MIDI INTERFACE

Type $\qquad$ 5-Pin-DIN-Socket, Input

## DISPLAYS

Type.................................3-digit alphanumeric LED display and individual status LED indicators

## POWER SUPPLY

| Power requirement | Selectable, $\sim 100-120 \mathrm{VAC}$, ~200-240VAC, $50-60 \mathrm{~Hz}$ |
| :---: | :---: |
| Power Consumption | Max. 10 Watts |
| Fuse.............. | 100-120 VAC: 630 mA (slow-blow) |
|  | 200-240 VAC: 315 mA (slow-blow) |
|  | 5X20mm glass type |
| wer cord connector | Standard IEC receptacle |
|  | with built-in fuse holde |

PHYSICAL
Dimensions ..................... $1.75 " \times 19 " \times 7.5^{\prime \prime}(44.5 \times 483 \times 191 \mathrm{~mm})$
Weight ..............................7.5 lbs (3.40Kg)
Power requirement

Power Consumption Max. 10 Watts
100-120 VAC: 630 mA (slow-blow) (slow-blow) tandard IEC receptacle with built-in fuse holder

Neight .....................................

## DIGITAL PROCESSING

A/D \& D/A Converters ......24-bit Sigma-Delta, 64/128-times oversampling Sampling Rate.................. 44.1 kHz

## SERVICE FOR YOUR NADY AUDIO PRODUCT

(U.S.) Should your NADY AUDIO product require service, please contact the Nady Service Department via telephone at (510) 652-2411, or e-mail at service@nady.com.
(International) For service, please contact the NADY AUDIO distributor in your country through the dealer from whom you purchased this product.

DO NOT ATTEMPT TO SERVICE THIS UNIT YOURSELF AS IT CAN BE DANGEROUS AND WILL ALSO VOID THE WARRANTY.

